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LETTER TRANSMITTING COMMENTS ON CORRECTIVE MEASURES STUDY FOR SOLID WASTE MANAGEMENT UNIT 159 AND AREA OF CONCERN 653 DATED 23 MAY 2000 CNC CHARLESTON SC
9/11/2000
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

D H E C
PROMOTE PROTECT PROSPER
2600 Bull Street
Columbia, SC 29201-1708

2908-12241

September 11, 2000

Henry Shepard II, P.E.
Caretaker Site Office
NAVFACENGCOM, Southern Division
P. O. Box 190010
North Charleston, SC 29419-9010

Re: Corrective Measures Study (CMS) Report for SWMU 159 and AOC 653 located in Zone H of the Charleston Naval Complex, SCO 170 022 560, Revision 0, dated May 23, 2000, received May 30, 2000.

Dear Mr. Shepard:

The South Carolina Department of Health and Environmental Control (Department) has reviewed the above referenced document according to applicable State and Federal Regulations, and the Charleston Naval Complex Hazardous Waste Permit, effective September 17, 1998. The attached comments were generated based on this review. These comments must be addressed prior to the approval of the above referenced document.

To facilitate the approval process of the referenced CMS report the comments generated by engineer and hydrogeologist are attached. The Department will forward the comments based on the risk assessment review at a later date.

Further, the CNC should submit, to the Department, the draft comment responses to address these comments within thirty (30) calendar days of the receipt of this letter. This would facilitate the comment resolution meeting and expedite the review and approval process.

Should you have any questions regarding these comments, please contact Mihir Mehta at (803) 896-4088 or Paul Bergstrand at (803) 896-4016.

Sincerely,

M P Mehta

Mihir Mehta, Project Manager
Corrective Action Engineering Section
Bureau of Land & Waste Management

Attachments: Memorandum from Susan Peterson to Mihir Mehta dated August 17, 2000.
Memorandum from Mansour Malik to Mihir Mehta dated September 8, 2000.

cc: Paul Bergstrand, Hydrogeology
Mansour Malik, Hydrogeology
Susan Peterson, Corrective Action Engineering
Rick Richter, Trident EQC
Tony Hunt, SOUTHDIV
Dann Spariosu, EPA Region IV
Dean F. Williamson, CH2MHILL/JONES
Todd Haverkost, EnSafe

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2600 Bull Street
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MEMORANDUM

TO: Mihir Mehta, Project Manager
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

FROM: Susan Peterson, Environmental Engineer Associate
Corrective Action Engineering Section
Division of Waste Management
Bureau of Land and Waste Management

DATE: August 17, 2000

RE: Charleston Naval Complex (CNC)
Charleston, South Carolina
SC 170 022 560

Zone H Draft Corrective Measures Report,
AOC 653 and SWMU 159
Dated May 23, 2000

Upon review of this report, the Department has the following comments:

General Comments

1. Site Close-out strategies to support NFA recommendation.

At the May, 2000 meeting, the team discussed the need to include/evaluate Oil Water Separators, Zone J, Zone L, inorganics in groundwater, and indoor air quality issues when closing out a SWMU (recommending an NFA). As currently written, the Navy does not evaluate these issues to support their NFA recommendation. The Department will not concur with an NFA recommendation until these issues are addressed.

2. DET reports

The Navy has used the completion of Interim Stabilization Measure (ISM) reports to support their RFI addendum recommendations. An example of this is SWMU 159 and AOC 653. The Navy must

a) Provide a copy of the ISM report to the Department
b) Incorporate, as deemed appropriate, the necessary information from the ISM report to support the RFI addendum recommendations.

The Department is unable to concur with any recommendations until the Navy provides this information.

Comments
Zone H Draft Corrective Measures Report for AOC 653 and SWMU 159
Prepared by Susan Peterson
August 17, 2000

3. Changes in SWMUs/AOCs due to an ISM
The Navy has included figures in the RFI addendum report for SWMUs/AOCs 136, 663, 666, 138, 667, 197, and 17 that did not represent the current conditions they claimed to represent. An example of this was AOC 666 at which the Charleston DET conducted an ISM. Due to the discrepancies found in that document, the Department requests that the Navy review Figure 4 for AOC 653 and Figure 4 for SWMU 159 to determine if the figures are truly accurate. This report should illustrate pre- and post-ISM conditions of the SWMU/AOC to support the proposed recommendation.

Specific Comments, per SWMU/AOC

SWMU 653
Navy recommends an NFA
Based on the information provided in the report, the Department is unable to concur with the Navy's recommendation. The following comment(s) support this decision:

1. Close-out strategies
The Navy has not addressed the close-out strategies (see General comments).

2. DET reports
The soil sampled during the initial RFI contained hits of BEQs, and Aroclors 1248 and 1260, which yielded a human health risk of 9.1E-07. Thus the purpose of the ISM was to excavate petroleum-impacted soil, rather than decrease a human health risk value. Nonetheless, the Department still requires particular information in order to make a determination on the Navy's NFA recommendation. Please refer to General Comment #3.

SWMU 159
Navy recommends an NFA
Based on the information provided in the report, the Department is unable to concur with the Navy's recommendation. The following comment(s) support this decision:

3. Close-out strategies
The Navy has not addressed the close-out strategies (see General comments).

4. Ecological concerns of the adjacent marsh
The Navy has responded to the Department's June 1999 comment about the lack of discussion on an adjacent marsh area. The Navy responded by saying that the Zone J work plan will be revised to meet the requirements of the new ERA Process document. The Navy further responded by stating that it believes that this evaluation will adequately address any potential ecological concerns for the adjacent wetlands.

The Department is stating this information as a reminder, since this addresses one of the close-out strategies.

5. Revised risk values

The Navy claimed that the soil and sediment that contributed to the human health and ecological risk values has been excavated and removed via an ISM conducted by the DET. The Navy has not provided the Department with information to support this claim. The Department requires this information, which would likely include a table showing the results of the confirmatory sampling, and revised human health and ecological risk values, if applicable.

D H E C

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Division of Hydrogeology
2600 Bull Street
Columbia, SC 29201
Telephone (803) 896-4010
Fax (803) 896-4002

Memorandum:

To: Mihir Mehta, Environmental Engineer Associate
Corrective Action Engineering Section
Division Of Hazardous and Infectious Waste Management
Bureau of Land and Waste Management

From: Mansour N. Malik
Hazardous Waste Section
Division of Hydrogeology
Bureau of Land and Waste Management

Date: 9/11/00

Re: Navbase Charleston (CNC)
Charleston, South Carolina
SC 1 70 022 560

Zone H, AOC 653 Corrective Measure Study Report and

Zone H, SWMU 159 Corrective Measure Study (CMS)Report

Revision 0, Dated May, 23rd, 2000

The Document referenced above has been reviewed with respect to the requirement of R.61-79 of the South Carolina Hazardous Waste Management Regulations, The Environmental Protection Agency's (EPA) RCRA Facility Assessment Guidance Document dated October 1988, and the revised EPA Region IV Environmental Compliance Branch Standard Operating Procedures and Quality assurance Manual (SOP/QAM) dated May 1996, the CNAV Final Comprehensive Sampling and Analysis Plan dated 30 August 1994, CERCLA 120(h) as amended.

Based on the results of the current review, the Department has the following comments:

General Comments:

1. The document appears to be well prepared, with satisfactory illustrations and maps. Revision of some might be required. Please see specific comments.

2. This report as presented was supposed to address the CMS activities plus the ISM (Interim Stabilization Measure) in terms of final remedy. Based on the attached document, justification towards an NFA (No Further Action) is not fulfilled. The Department would like to see more soil and groundwater sampling to make sure no risk is posed on human health or the environment.

3. In referring to other relative documents, this document does not bring in some of the important information regarding the geological and hydrogeolgical settings of the area in concern. This document failed to build a comprehensive correlation with data from adjacent SWMUs and AOCs, and therefore creates data gaps that make it impossible to come to a conclusion. Please revise and include all neighboring SWMUs and AOCs, and any oil-water separators, plus the pertinent hydrogeological data.

4. This documents does not relate to the unfinished work in Zone L and Zone J. It does not concur with proposed NFA.

5. Evaluation of the fate and transport potential of the Arsenic as from soil-to-groundwater is insufficient to support the claim that "Arsenic did not have the potential to migrate from soil to groundwater". It is evident that in the subsurface soil concentration of Arsenic exceeds that of the surface soil as proved throughout the current work and the background correlation reported. For the Department to consider an NFA, the soil-to-groundwater pathway for Arsenic and VOCs must be extensively studied.

6. The lack of information related to the locations and settings of the oil-water separators form a data gap for present and future evaluation of this site. The Department recommends that the Navy must include OWS (Oil Water Separators) data linkages to all SWMUs and AOCs to help enhance the quality of evaluation and assessment.

Zone H, AOC 653:

7. Fig 2 failed to show correlation with associated SWMUs and AOCs, and OWS as it should. Building 1508 is associated with SWMU 124; the Satellite Accumlation Area. Building 1347 is associated with SWMUS 92,93 and 115. Building 636 is associated with SWMUs 122, 123, SAA and PSWMUs 92, 93 and115. None of the information cited, is included on the figures nor commented on, throughout the text. Please revise and include comments on correlations.

8. AST 640 and UST 640B are in the range of 250-300 ft east of AOC 635. Although groundwater flow direction is generally northeast, a correlation might be useful in predicting source and extent of the contaminants in concern. Please check and include relative information.

9. Table 3.3 on page 3.6 shows the TPH as non detect out of one round of sampling RFI (1996), while in Section 3.2 Navy DET (Environmental Detachment) ISM stated TPH was detected in all soil samples with a high of 42,000 mg/kg and also exceeded its 100 mg/kg screening level. Please clarify.

10. Section 6.2, 2nd line, SWMU 136/AOC 663 never appeared in any of the maps and figures throughout the document. However, the text has used them for correlation. Please revise and include relative information.

11. Section 4.1 2nd paragraph, last line. "Fig 3 shows..." Please be advised that wells NBCHGRD003/03D and BCHGRD006/06D were not indicated anywhere in the figure mentioned. Please check and include wells with their relevant parameters.

12. All of the figures presented lack information related to the wells parameters. Please revise well locations, depths, groundwater levels and any relevant hydrogeological data.

Zone H, SWMU 159:

13. Fig 6 shows TCE concentration values in soil as increasing downgradient (9, 13, 15, 21) mg/kg. In order to thoroughly investigate what is beyond that, the Department believes it is necessary to conduct more sampling downgradient both for the surface and subsurface intervals.

14. Fig 3: Sediment sample locations are not indicated in the legend. Please revise and include the information on the figure.

15. In order to support the claim that TCE has no potential to migrate from soil to groundwater, the Navy must complete more extensive data research/sampling and include better interpretations to support conclusion.

16. Section 4.2.1.1, Line 8: The document points out that reviewing archived soil data for three confirmation sample points at AOC 653 were reviewed to help evaluate SWMU 159. Please be advised that no figure throughout the documents ever ties the two sites together. The results of the evaluation are nowhere to be found in the text. For better correlation, Please revise and include an illustrating figure connecting the two locations with pertinent hydrological data. Also include the evaluation referenced.